OIL FILTRATION SYSTEMS

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Vacuum Dehydration Oil Purification System
Basic Operating Instructions

- Connect inlet and outlet hoses from VDOPS to oil reservoir, and connect power supply cord to power source. **NOTE:** Ensure that all hose fittings and electrical connections are tight before operation. System should be in close proximity to reservoir (within 20') and at approximately the same elevation
- Close all Drain Valves on the Vacuum Dehydrator.
- Open Inlet and Outlet Valves on the Vacuum Dehydrator and the oil supply reservoir.
- Close Air Inlet Gate Valve all the way.
- Turn "Main Power Disconnect" switch to "On" position. If the "Phase Failure" lights up, switch setting on the "Phase Reversal Switch", effectively reversing the polarity of the power supply. The "Phase Failure" indicator should turn off, and the system is ready to run in the correct phase.
- Push the "On" button to start running the system.
- Observe the Vacuum Gauge reading – it should go to 24-26" with the Air Inlet Gate Valve fully closed.
- Once you observe the flow of oil coming into the Vacuum Tower through the dispersal pipes at the top of the Vacuum Tower, regulate the Air Inlet Gate Valve to 20-22" as seen on the Vacuum Gauge. This adjustment is gradual and does not respond quickly, so there will be a 3-5 second delay in results as adjustment is made. During normal operation, it should be maintained at 20-22", if possible.
- The "Pump Motor Speed Control" (black dial) should be at full speed (reading 60Hz on VFD through sight glass on control panel) – adjust to slower speed if necessary to maintain oil level in lower section of Vacuum Chamber (it should be anywhere from ¼ - ½ in the lower sight glass)
- Open the Vent Valve on top of the filter housing and let it dispel air until all air has been vented and oil comes out of the vent. Then close the Vent Valve.

- **NOTE**: The oil discharge pump speed is regulated by the VFD's motor frequency, and at 60 Hz, the pump will run at the full rated GPM. On the other hand, if the desired flow rate is half the rated GPM (for example), the knob should be set to 30 Hz.

- After flow through the entire system is fully established, turn the Heater on. The factory temperature controller setting is 150 degrees F, however temperature can be increased or decreased by pressing the scroll buttons on the "Temperature Control" up Maximum water extraction rate is typically accomplished when fluid is processed between 140-160 degrees F.
- The system is now fully functioning. Normal discharge operating pressure is 5-20 PSI. However, with restricted discharge lines or long discharge lines, the pressure can be higher. The pump is set from the factory to relieve at 100 PSI.

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To stop the Vacuum Dehydrator, first **TURN OFF THE HEATER** and allow it to cool down for a period of time (30 seconds to 5 minutes, if possible). Then close the inlet valve and allow the system to run for a period of time to purge the system of oil (approximately 30 seconds). The oil in the system will be pumped to the reservoir, and most of the oil in the system and hoses will be purged.

- It is now okay to press the red “Stop” button.
- Close all valves from the reservoir and on the system.
- Turn Main Power Disconnect to “Off” position.

Refer to Operators Manual For Detailed
Operation Instructions and Troubleshooting Tips